

AIRLESS TIPS

Tips on tips



CHOOSING THE RIGHT TIP FOR YOUR JOB IS ESSENTIAL

The spray tip affects a job's profit margin as much as any other piece of equipment on the site.

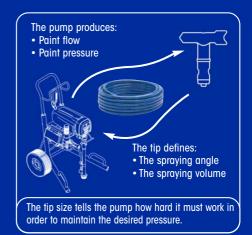
- Optimize your performance
- Improve your work quality
- Control your costs





HOW DO TIPS WORK?

- An airless sprayer pumps and pressurizes the paint without the use of air.
- The paint is then forced to go through the small orifice of the tip under high pressure (up to 350 bar).
- This process atomizes the paint in a controlled fan width and flow rate (same effect as placing your thumb on the end of a garden hose)



WHY SO MANY DIFFERENT TIPS AND SIZES?

You can compare it to choosing the right bit for your electric drill.

There are bits designed for wood, bits for metal and bits for concrete.

Each bit for each application comes in a variety of sizes.

Using the wrong bit on the wrong surface does not work.

With airless tips it is very similar.

CHOOSING THE RIGHT TIP

- decreases overspray
- provides more control
- results in less time to spend on the job
- less paint usage
- and higher profits



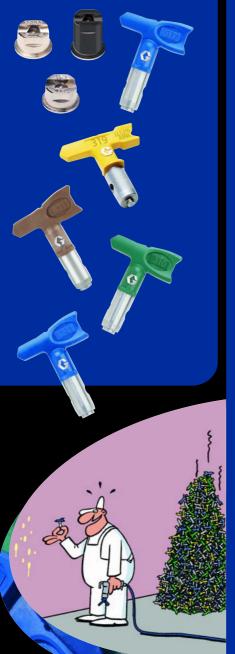


Getting the most from your spray tip depends on several factors:

- THE TIP'S (FAN WIDTH
- THE TIP'S ORIFICE SIZE
- YOUR SPRAYER'S MAXIMUM OUTPUT
- THE (TYPE OF PAINT) YOU ARE SPRAYING
- THE (TYPE OF SURFACE) YOU ARE SPRAYING

(1225)

• (TIP WEAR







of a tip is defined by it's spray angle when spraying at 30 cm distance from the surface. The angle is indicated with one number only:

 5 in this case corresponds to an angle of 50°.



To obtain the fan width, multiply the number of the angle by 5:

• $5 \times 5 = 25 \text{ cm fan width}$



The wider the spray pattern, the faster the surface is painted. Wide spraying greatly improves productivity.

However, wide spraying is difficult to control and wide spray tips are not available in all sizes.

Graco provides a special range of RAC X^{TM} tips, **WAXXXX**, specifically cut to provide a superb result at a wide angle, saving you time.



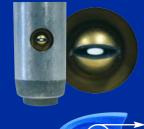
3 passes

with WA



6 passes

with standard tip





THE (ORIFICE SIZE

defines the amount of paint that will flow through the tip.

It is indicated by the last two digits:

• 17 in this case corresponds to a hole size of 0.017 of an inch or 0.43 mm

Your actual flow rate will depend on your spraying pressure and the paint you are using: high pressure equals more flow; heavier paints equal less flow.

EVERY SPRAYER HAS A (MAXIMUM OUTPUT) LEVEL.

It is important never to exceed the maximum spray tip size that your machine can handle.

Example: if you require 4,4 I/min the smallest sprayer recommended is the Ultra®Max II 1095.

Inches		0.007	0.009	0.011	0.013	0.015	0.017	0.019	0.021	0.023	0.025	0.027	0.029	0.031	0.033	0.035	0.037	0.039	0.041	0.043	0.045	0.047
mm	_ <u>₽</u>	0.18	0.23	0.28	0.3302	0.38	0.43	0.48	0.53	0.58	0.64	0.69	0.74	0.79	0.84	0.89	0.94	0.99	1.04	1.09	1.14	1.19
l/min	¥	0.2	0.3	0.5	0.7	0.9	1.2	1.5	1.8	2.2	2.5	3.0	3.4	3.9	4.4	5	5.6	6.2	6.8	7.5	8.2	9
RANGE	MODEL																					
ST MAX™	395																					
ST MAX™ II	495 595																					
ULTRA®MAX II	695																					
-	795 1095																					
MARK	V V	with po																				
	Х	with pl																				
	^	with pl																				
GMAX™	3900																					
-	5900 HD 7900																					
EH	200																					
GH	200 230																					
	300																					
GH	833 5030																					
GH	3640																					
	2560 2075																					
ROOFING	2075 1015																					
		Fine F	inish A	pplica	tions			Pro	ofessio	nal Airl	ess Ap	plicatio	ons				ŀ	leavy D	uty Ap	plicatio	ns	

THE (TYPE OF PAINT) as well as THE (SURFACE

you are spraying define the kind of tip you should use.

The table below indicates recommended tips and sizes for different applications and materials.



Corresponding guards

FINE FINISH TIPS



	Typical applications	Materials	Recommended fip sizes
DAG VIM	Onlyington	Dura	000 010
RAC X™	Cabinetry, wood working,	Dyes	008 - 010
FFAxxx	metal and fine finish	Ink	010 - 012
	surfaces	Stains	012 - 014
Flat Silver		Lacquers	012 - 014
163xxx		Oils	012 - 014
Flat Black		Enamels	012 - 014
163xxx		Urethanes	012 - 014
TOOXXX		Auto finishes	008 - 014



246215 Flat tip 220251 Flat tip 220247

RAC X™

PROFESSIONAL AIRLESS TIPS



Residential, commercial or industrial job sites	Latex Acrylics	
Both interior and exterior.	Multi colours Emulsions Block fillers	
	Silicon	
	or industrial job sites. Both interior and	or industrial job sites. Acrylics Both interior and Multi colours exterior. Emulsions Block fillers



RAC X™ 246215

> Flat tip 220251 Flat tip

220251

HEAVY DUTY TIPS

AIRLESS STRIPING TIPS

Flat S 16



RAC X** HDAxxx WAxxxx Idt Silver 163xxx	High production, large surfaces. Residential, commercial or industrial job sites. Both interior and exterior paint as well as airless plaster applications.	Block fillers Intumescents Spachtel Elastomerics Mastics Epoxies Fibered Asphalt Silicat/Mineral	027 - 031 029 - 035 029 - 041 027 - 033 041 - 047 043 - 061 047 - 053 031 - 071 027 - 033	Sopo	RAC X 24621 Flat ti 22025
		Silicat/Mineral Contact cement	027 - 033 -		

015 - 019

023 - 025

017 - 021

023 - 025 021 - 025



RAC® 5 LineLazer 013 - 055 Airless striping Parking lots, roads, ware-LL5xxx house floors, crossings paints and athletic fields. Ideal to reduce overspray. Top quality 015 - 021 Sharp line edges. exterior paints



RAC® 5 243161

FOR ALL TIP SIZES AVAILABLE IN ALL TIP RANGES, PLEASE CONTACT YOUR GRACO DISTRIBUTOR

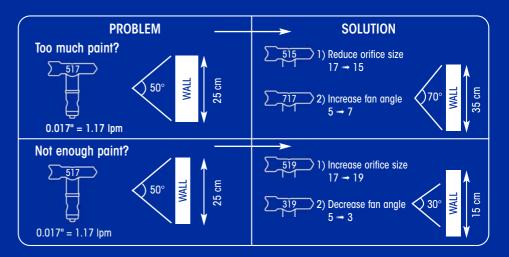
Even paint distribution across the line.

	#	Si S		inghes.	, He was	Activities				100 No.	Texture & high viscosity material for spray applications HDA-XXX														NEW 1st digit x 5 = fan width*	WORN time to change!	
	400	FFA-XXX PAA-XXX																DA-VV	^								
	108	110	112		115																					5 cm	3 cm
	208	210	212	214	215	217	219	221		225	227		231		235											10 cm	7 cm
	308	310	312	314	315	317	319	321		325	327		331		335											15 cm	10 cm
		410	412	414	415	417	419	421	323	425	427	329	431	433	435		439	441	443	445	451	455				20 cm	15 cm
		510	512	514	515	517	519	521	423	525	527	429	531	533	535	537	539	541	543	545	551	555	561	665		25 cm	20 cm
			612	614	615	617	619	621	523	625	627	529	631	633	635	637	639	641	643	645	651	655	661		671	30 cm	25 cm
								721	623			629			735											35 cm	30 cm
							819	821	723		827	729	831	833	835											40 cm	35 cm
-XXXX								1221	1223	1225	1227	1229	1231	1233	1235	1237	1239									60 cm	55 cm
																										*at 30 cm spray	ying distance





ADJUSTING TO THE RIGHT TIP



Based on this general information, you will be able to choose the appropriate tip for your application.

Experiencing with a few tips will help you gain experience and will help you decide what is the optimum tip for your application.

Ask your distributor or your GRACO representative for specific tip size recommendations.

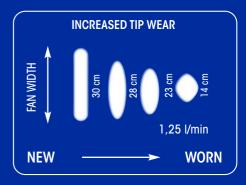
TIPS DO WEAR) AND WILL NEED REPLACEMENT

THE TWO MAIN CAUSES FOR TIP **WEAR ARE:**

- Working pressure at the gun.
- Abrasive material

To explain what tip wear is and what this means to your business, think again of the similarities between spray tips and drill bits. Have you ever tried to drill into concrete using a worn out bit? If you have, then you know that it takes much longer to drill, takes much more effort and the drilled hole ends up being very unprofessional. It is the same with continuing to spray with a worn out tip.

WHAT HAPPENS WHEN A TIP WEARS?



- Fan width decreases
- = more passes necessary = more labour
- orifice size increases = more paint comes out = more material cost

TOTAL: TWICE THE LABOUR!

+ 30% more paint for the same surface!



Note that by using a worn out tip you might surpass the maximum output of your sprayer. Using a worn out tip will end up costing you much more than the cost of replacing a tip (labour + paint).





ABOUT GRACO

Founded in 1926, Graco is a world leader in fluid handling systems and components. Graco products move, measure, control, dispense and apply a wide range of fluids and viscous materials used in vehicle lubrication, commercial and industrial settings.

The company's success is based on its unwavering commitment to technical excellence, world-class manufacturing and unparalleled customer service. Working closely with qualified distributors, Graco offers systems, products and technology that set the quality standard in a wide range of fluid handling solutions. Graco provides equipment for spray finishing, protective coating, paint circulation, lubrication, and dispensing sealants and adhesives, along with power application equipment for the contractor industry. Graco's ongoing investment in fluid management and control will continue to provide innovative solutions to a diverse global market.

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